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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,658

02/20/2004

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1793.1213

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7590

02/06/2008

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EXAMINER

DO, ANH HONG

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

02/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,658	Applicant(s) OH, YOUNG-SEUK	
	Examiner ANH H. DO	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-12, 16-19, 21-27, 46, 47, 49-52 and 54-56 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 13-15, 28-45, 48 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) ✓
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 19 is objected to because of the following informalities: "...one or more}determining the sub-graphics..." (line 6). Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-7, 10-12, 16-19, 21-27, 46, 47, 49-52, and 54-56 are rejected under 35 U.S.C. 102(a) as being anticipated by Huang et al. (U.S. Patent No. 5,748,904).

Regarding claims 1, 6 and, 7 Huang discloses:

- dividing a graphic (background or object graphic) into a plurality of segments which corresponding to the claimed sub-graphics) based on color characteristic of the graphic with or without gradient characteristic and (col. 2, lines 58-65: dividing graphic data into segments in color mode);

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- storing configuration information of the sub-graphics (col. 2, lines 52-53:

DRAMS for storing the graphic segments).

Regarding claims 2 and 3, Huang teaches compressing and storing data of the sub-graphics (col. 3, lines 51-60: compressing the segments of graphic data using compressor 5 and storing them in a buffer 57).

Regarding claim 4, Huang teaches coordinate data and size data of the sub-graphics (col. 3, lines 2-3) and information need for reading the compressed data of sub-graphics (col. 3, lines 65-67: code-word header).

Regarding claim 5, Huang teaches Huffman coding method (col. 3, lines 38-40: run-length encoder).

Regarding claim 10, Huang discloses:

- determining the sub-graphics required for reconstructing the graphic (col. 2, lines 58-67: sub-graphics are determined as segments);

- reading configuration information of the determined sub-graphics and reconstructing the determined sub-graphics (col. 4, lines 25-31: reading configuration information of the segments and reconstructing the sub-graphics using decompressor 6);

- combining the reconstructed sub-graphic based on the configuration and displaying the combined result (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined and then displayed).

Regarding claim 11, Huang teaches:

- reading compressed data of the sub-graphics based configuration (col. 4, lines 27-30);

- decompressing the compressed data of the sub-graphics and generating the decompressed result as a reconstructed sub-graphic (col. 4, lines 30-32).

Regarding claim 12, Huang teaches an index corresponding to color value of a pixel (Fig. 6: index).

Regarding claim 16, Hang discloses:

- a graphic divider for dividing the graphic into sub-graphics according to a color characteristic of the graphic (col. 2, lines 58-65: dividing graphic data into segments in color mode);

- a compression unit for compressing the sub-graphics and a first storage unit for storing compressed sub-graphics (Fig. 2: encoder 51 or 52 or 53 and buffer 54);

- a second storage unit for storing configuration information for the sub-graphics (Fig. 2: buffer 57);

- a system controller 2 for controlling the compression unit 5 and the first storage unit 3 so that if a plurality of sub-graphics with a same graphic color characteristic among the divided sub-graphics exist, data of one sub-graphic among the plurality of sub-graphics is compressed and stored, adding information needed for reading data of the sub-graphics stored in the first storage unit 3 to the configuration information and stores the configuration information in the second storage unit 10 (Fig. 1).

Regarding claim 17, Huang discloses:

- graphic divider for dividing the graphic into sub-graphics according to a color characteristic of the graphic (col. 2, lines 58-65: dividing graphic data into segments in color mode);

- a detector detecting configuration information of the sub-graphics (col. 4, lines 25-31: detecting configuration information of the segments);

- a memory for storing the configuration information (Fig. 1: Storage unit 10).

Regarding claim 17, Huang teaches indexes of pixels included in the sub-graphics (Fig. 6: index).

Regarding claim 19, Huang discloses:

- a decompression unit 6 (Fig. 3);

- a system controller 2 (Fig. 1) for determining the sub-graphics required for reconstructing the graphic (col. 2, lines 58-67: sub-graphics are determined as segments) and reading compressed data of the sub-graphics based configuration (col. 4, lines 27-30);

- a graphic reconstruction unit for combining the reconstructed sub-graphic based on the configuration (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined).

Regarding claims 21-24, Huang discloses:

- dividing a graphic into a plurality of segments which corresponding to the claimed sub-graphics) based on color characteristic of the graphic (col. 2, lines 58-65: dividing graphic data into segments in color mode);

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- storing configuration information of the sub-graphics (col. 2, lines 52-53:

DRAMS for storing the graphic segments);

- reading compressed data of the sub-graphics based configuration (col. 4, lines 27-30);

- combining the reconstructed sub-graphic based on the configuration and displaying the combined result (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined and then displayed).

Regarding claim 25, Huang teaches compressing data of the sub-graphics (col. 3, lines 51-60: compressing the segments of graphic data using compressor 5).

Regarding claim 26, Huang decompressing the compressed sub-graphics after reading based on configuration information (col. 4, lines 25-31: reading configuration information of the segments and reconstructing the sub-graphics using decompressor 6).

Regarding claim 27, Huang teaches compressing and decompressing graphic data using Huffman coding method (col. 3, lines 38-40: run-length encoder).

Regarding claims 46 and 47, Huang discloses;

- graphic divider for dividing the graphic into sub-graphics according to a color characteristic of the graphic (col. 2, lines 58-65: dividing graphic data into segments in color mode);

- a compression unit for compressing the sub-graphics and a plurality of storage units for storing compressed sub-graphics (Fig. 2: encoder 51 or 52 or 53 and buffer 54);

- a system controller 2 (Fig. 1) - determining the sub-graphics required for reconstructing the graphic (col. 2, lines 58-67: sub-graphics are determined as segments) and reading compressed data of the sub-graphics based configuration (col. 4, lines 27-30);

- a decompression unit 6 (Fig. 3);

- a graphic reconstruction unit for combining the reconstructed sub-graphic based on the configuration (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined).

Regarding claim 49, Hang teaches a user command unit 2 (Fig. 1).

Regarding claim 50, Huang teaches indexes of pixels included in the sub-graphics (Fig. 6: index).

Regarding claim 51, Huang teaches a display (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined and then displayed).

Regarding claims 52 and 54, Huang discloses:

- graphic divider for dividing the graphic into sub-graphics according to a color characteristic of the graphic (col. 2, lines 58-65: dividing graphic data into segments in color mode);

- a detector detecting configuration information of the sub-graphics (col. 4, lines 25-31: detecting configuration information of the segments);

- a system controller 2 (Fig. 1) determining the sub-graphics required for reconstructing the graphic (col. 2, lines 58-67: sub-graphics are determined as

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segments) and reading compressed data of the sub-graphics based configuration (col. 4, lines 27-30);

- a graphic data classification unit (col. 3, lines 52-58: classifying code word of the segment of the graphic data);

- a graphic reconstruction unit for combining the reconstructed sub-graphic based on the configuration (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined).

Regarding claim 55, Huang teaches a graphic reconstruction unit for combining the reconstructed sub-graphic based on the configuration (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined).

Regarding claim 56, Huang teaches a display (col. 4, lines 21-34: in decompression, the sub-graphics or segments are combined and then displayed).

Allowable Subject Matter

5. Claim 20 is allowed.

6. Claims 8, 9, 13-15, 28-45, 48, and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

1. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 20, the prior art, taken either singly or in combination, does not teach:

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- a graphic data classification unit... from the memory.

Regarding claim 8, the prior art, taken either singly or in combination, does not teach:

- if the one sub-graphic... a corresponding graphic.

Regarding claim 9, it depends from claim 8.

Regarding claim 13, the prior art, taken either singly or in combination, does not teach:

- dividing the sub-graphics... the configuration information.

Regarding claims 14 and 51, they depend from claim 13.

Regarding claim 28, the prior art, taken either singly or in combination, does not teach:

- if the sub-graphic with similar index values... with different index values.

Regarding claims 29-45, they depend from claim 28.

Regarding claim 48, the prior art, taken either singly or in combination, does not teach:

- wherein... in a second storage unit.

Regarding claim 53, the prior art, taken either singly or in combination, does not teach:

- wherein... the configuration information.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433.

The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 4, 2008



ANH HONG DO
PRIMARY EXAMINER